

# Environmental Management Performance Report

May 2003



E0306030.1



**Department of Energy**  
Richland Operations Office



**Bechtel Hanford, Inc.**  
Environmental Restoration Contractor

Data as of month-end May

ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003

TABLE OF CONTENTS

<b>INTRODUCTION .....</b>	<b>1</b>
<b>SECTION A – EXECUTIVE SUMMARY .....</b>	<b>3</b>
NOTABLE ACCOMPLISHMENTS .....	3
SAFETY .....	4
MAJOR COMMITMENTS .....	8
PERFORMANCE OBJECTIVES.....	9
TOTAL ERC COST/SCHEDULE OVERVIEW .....	10
ISSUES (REGULATORY/EXTERNAL/DOE) .....	13
KEY INTEGRATION ACTIVITIES .....	13
UPCOMING PLANNED KEY EVENTS .....	13
<b>SECTION B – RIVER CORRIDOR RESTORATION .....</b>	<b>14</b>
ACCOMPLISHMENTS.....	14
MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS).....	16
PERFORMANCE OBJECTIVES.....	16
PERFORMANCE MEASURES/METRICS .....	17
COST/SCHEDULE STATUS.....	19
ISSUES (REGULATORY/EXTERNAL/DOE) .....	21
INTEGRATION ACTIVITIES .....	21

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

## **INTRODUCTION**

The monthly Environmental Restoration (ER) Environmental Management Performance Report (EMPR) consists of two sections: Section A - Executive Summary, and Section B – River Corridor Restoration. All data are current as of May 31, 2003, unless otherwise noted.

**Section A – Executive Summary.** The Executive Summary begins with a description of notable accomplishments for the current reporting month that are considered to have made the greatest contribution toward safe, timely, and cost-effective Hanford Site cleanup. Safety statistics are also included. Major commitments are summarized that encompass Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones. Fiscal year 2003 (FY03) performance objectives and status are provided. Fiscal year-to-date ER Project cost and schedule variance analysis is summarized. Issues that require management and/or regulator attention are addressed along with resolution status. The Key Integration Activities section highlights site activities that cross contractor boundaries, supporting overall Hanford Site goals. The Executive Summary ends with a listing of major upcoming planned key events (90-day look ahead).

**Section B – River Corridor Restoration.** This section contains more detailed Environmental Restoration Contractor (ERC) monthly activity information and performance status for the three Project Baseline Summaries (PBSs) within the River Corridor Restoration outcome. These three PBSs consist of RC01 - 100 Area River Corridor Cleanup, RC02 - 300 Area Cleanup, and RC05 - River Corridor Waste Management.

PBS SC01 - Near-Term Stewardship is structured within the Site Stewardship outcome. Due to the minimal FY03 workscope identified for this PBS, SC01 performance data is included in the Executive Summary cost/schedule overview.

Performance Incentive and Safety information in this report is identified with a green, yellow, or red text box used as an indicator of the overall status. Green indicates work or issue resolution is satisfactory and generally meets or exceeds requirements, yellow indicates that significant improvement is required, and red indicates unsatisfactory conditions that require immediate corrective actions.

# Section A - Executive Summary



*F Reactor SSE Construction*



*Loading Out Pipeline 26 (from C Reactor) and Contaminated Soil*



*H Reactor FSB Cleanout*



*116-KW-3 Retention Basin Remediation*

Data as of month-end May

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

## **SECTION A – EXECUTIVE SUMMARY**

Data as of month-end May

### **NOTABLE ACCOMPLISHMENTS**

#### **River Corridor Restoration:**

Significant effort continues toward achieving the goal to complete 32 waste sites by June 30. As of the end of May, closure documentation has been submitted for 28 waste sites. A total of 18 waste sites have been excavated through May.

Backfill of 30 liquid waste sites was completed in the 100 F Area on May 20. This marks the completion of Tri-Party Agreement Milestone M-16-13B, "Complete Remediation and Backfill of 16 Liquid Waste Sites and Process Effluent Pipelines in the 100-FR-1 and 100-FR-2 Operable Units as Defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area" (due October 29, 2004). The remediation activities were completed more than 17 months ahead of the milestone schedule and included 14 additional waste sites.

The U.S. Department of Energy (DOE) Richland Operations Office (RL), the U.S. Environmental Protection Agency (EPA), and the Washington State Department of Ecology (Ecology) approved the 116-N-1 Explanation of Significant Difference (ESD) on May 27. This is the first ESD to invoke the "balancing factors" to determine the extent of excavation below 4.5 meters (15 feet). The institutional controls (ICs) were expanded to prohibit irrigation at the 116-N-1 waste site based on these balancing factors. The result of prohibiting irrigation and maintaining ICs prevented further excavation in the deep zone for a cost avoidance of \$54 million.

A small-business design subcontract was awarded in May to address the elevated radiological dose and airborne levels in the 116-N-1 Crib.

Cleanup verification packages (CVPs), Rev. 0, were approved in May for Landfills 1A and 1B located in the 300 Area. Excavation and stockpiling of the oil-contaminated soil from the 618-4 Burial Ground was also completed.

During May, 65,061 metric tons (71,718 tons) of contaminated waste were disposed in the Environmental Restoration Disposal Facility (ERDF), for a total of 425,031 metric tons (468,519 tons) disposed to date in FY03. A total of 3,888,674 metric tons (4,286,552 tons) of waste have been disposed in ERDF since operations began in July 1996.

The subcontract for the D Reactor safe storage enclosure (SSE) design and installation was awarded on May 22.

The subcontract for the DR Reactor CVP was awarded on May 6.

Loadout of the 118-C-4 Horizontal Rod Storage Cave debris was completed on May 15. Rod disposal is expected to be completed in early June.

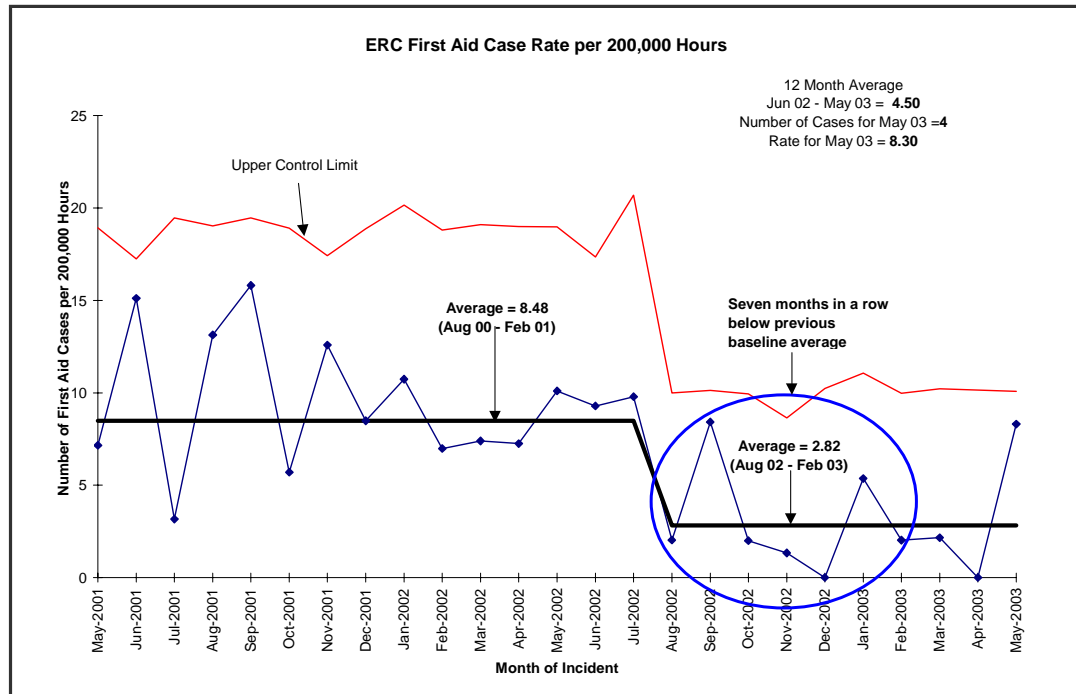
A subcontract was established for additional field work on the 109-N facility asbestos removal (pipe elbows) and 1112-N reroofing projects.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT

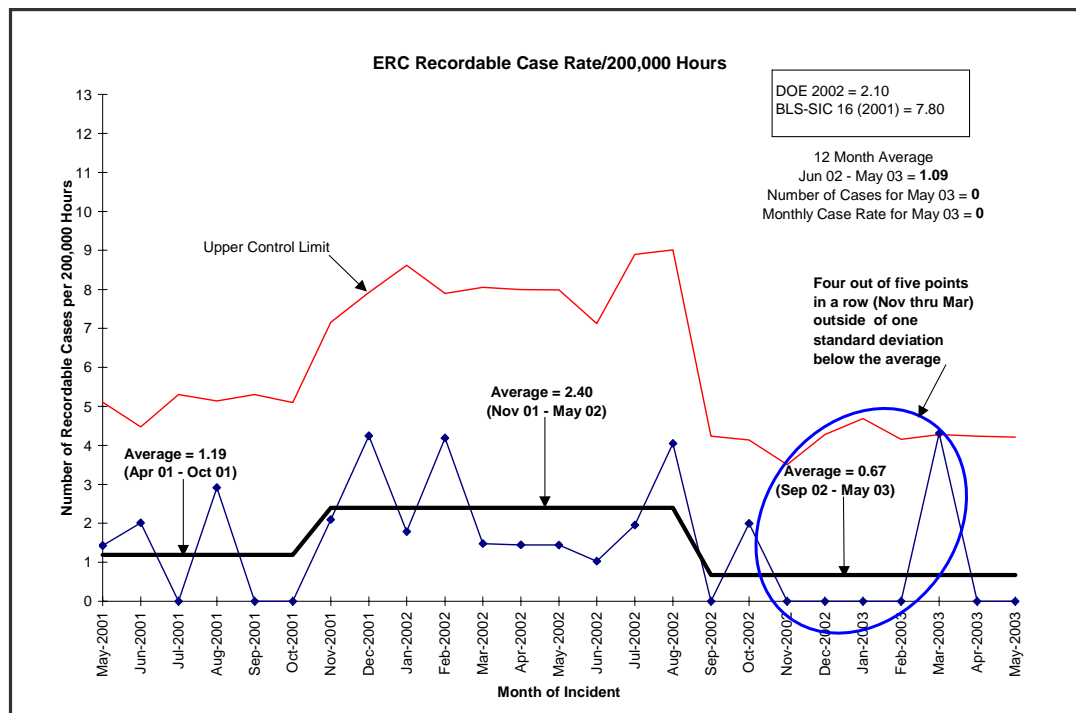
## ENVIRONMENTAL RESTORATION

### MAY 2003

#### SAFETY



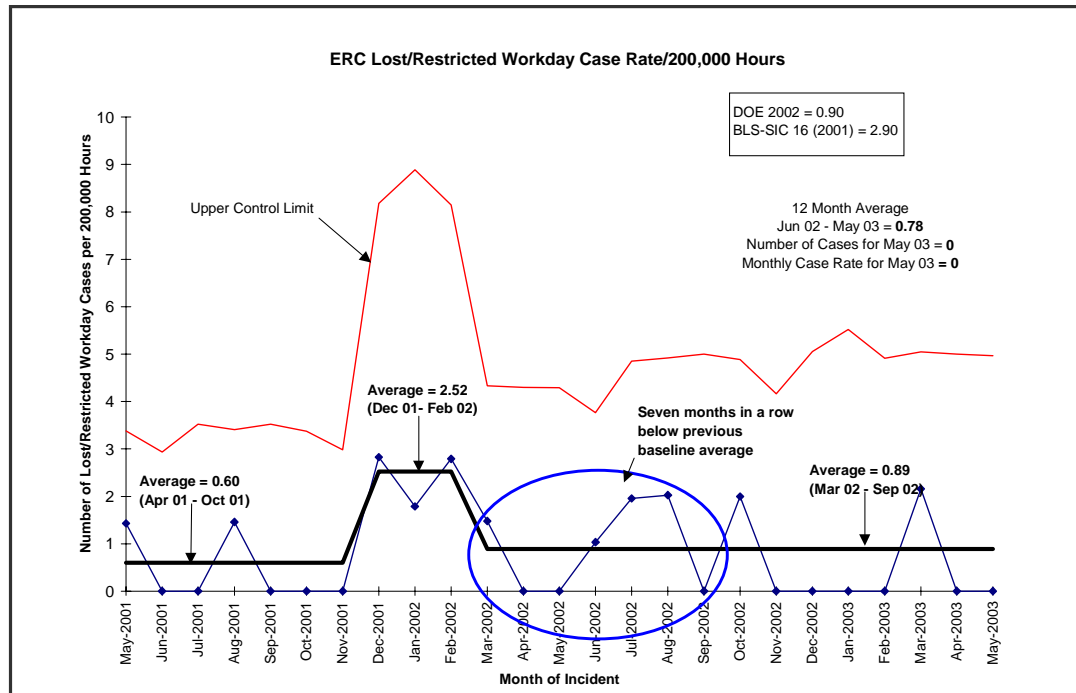
NOTE: This data has been stable since August 2002.



NOTE: The baseline average was recalculated for September 2002 through May 2003. The new baseline is 0.67 based on four out of five points in a row (Nov 02-Mar 03) outside of one standard deviation below the average.

# ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT ENVIRONMENTAL RESTORATION MAY 2003

## SAFETY (continued)



NOTE: This data has been stable since March 2002.

### Safety:

The following actions have or are being taken by the Environmental Restoration Contractor (ERC) to focus on safety improvements:

- The ERC is in the process of completing a draft application for DOE Voluntary Protection Program (VPP) Star Status recognition. Safety improvement opportunities identified in the VPP Safety Improvement Plan (SIP) have been reviewed for level of effort and safety value to the organization. Some of the improvement opportunities have been cancelled or placed on hold. Other improvement opportunities have been completed or are ongoing as identified in the SIP.
- Bechtel Hanford, Inc. (BHI) continues to hold Senior ALARA meetings and Project Safety committee meetings monthly with Labor Stewards.
- The Subcontract Technical Representatives (STRs) performed a review of Contract "Exhibit G", Subcontractor Health and Safety Requirements, to ensure the subcontractor submittals are complete.
- The STRs perform periodic self-assessments for subcontractor compliance to contract requirements.
- BHI continues to hold Incident Review Board meetings to ensure that the ERC has correctly and thoroughly determined the cause of any incidents and identified correctable opportunities. In addition, lessons learned based on these incidents are used to prevent future occurrences.
- All incidents are thoroughly investigated. Emphasis is placed on causes and corrective actions that can be implemented where applicable. Timely discussions take place in safety meetings and plan of



**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**SAFETY (continued)**

the day (POD) meetings. When investigations are complete, the results are sent to the Area Superintendents, Field Superintendents, and Supervisors for review at the PODs.

- BHI continues to look for trends and consults with Corporate and other Bechtel National, Inc. (BNI) contacts for ways to enhance performance.
- The ERC continues to work closely with the Hanford Atomic Metal Trades Council (HAMTC) Safety Representative to resolve safety issues as they arise.
- Senior management continues to meet with small groups of employees in the field to discuss safety and personal commitment to safety.
- The Field Support General Superintendent, Subcontract Manager, and Project Safety Manager continue to visit different projects on a regular basis, meet with project team members, and conduct safety walkarounds. Area Superintendents for Decontamination and Decommissioning projects and Surveillance and Maintenance projects are included in these walkarounds. The walkaround participants visit projects other than those for which they are responsible. Information from the walkarounds is shared with the team and other Field Support personnel. Safety conditions requiring corrective action are assigned to project personnel or support personnel for action and are tracked to closure. This activity is ongoing.
- Field Support personnel conduct weekly safety inspections. Findings are entered into a database and tracked to closure. Daily inspections are also performed and logged in the project's daily logbook or daily report.
- The Alliance has revised the Sharing for Success goals to reduce lost time accidents and OSHA recordable rates for FY03.
- Summer months mean longer days, warmer temperatures, schools are closed, vacations are being planned, just to name a few distractions that may add to employees losing focus on their work activities. Management continues to emphasize to all employees the importance to stay focused on their work and to continue with a questioning attitude.

	<b>FYTD</b>	<b>Current Period (04/14/03- 05/11/03)</b>	<b>Current Period Comments</b>
<b>First Aid</b>	11	4	Strain (3), Bruise (1)
<b>OSHA Recordable</b>	3	0	
<b>Restricted Workday Case</b>	2	0	
<b>Lost Workday Case</b>	0	0	

**Status:**

- As of May 31, 2003, the ERC had worked approximately 879,000 hours without a lost workday case. The last incident occurred on June 4, 2002 and became lost time on September 4, 2002. Continuous employee involvement is being fostered by the Integrated Environmental Safety and Health Management System (ISMS), VPP, labor alliance programs, e-mail communications, and one-on-one meetings with employees.



**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**SAFETY (continued)**

- During the period October 1, 2002 through May 31, 2003, the ERC experienced 11 first aid incidents, 2 lost/restricted incidents, and 1 recordable-only incident, which equates to having **95% of our workdays injury free**. During this time period, the ERC experienced a string of 68 consecutive **injury-free** workdays.
- The ERC continues to work diligently to provide accurate and timely reporting of occurrences, and to conduct followup fact-finding critiques to identify problems and improve safe field operations.
- The ERC Safety Expo team completed an interactive safety booth emphasizing safety 24 hours a day, 7 days per week at home, at work, and at play. The theme for the booth was "Without Safety, It's a Jungle Out There."
- The ERC sent 12 employees to the annual VPPA Region X Conference May 7-8 in Pasco, Washington. The conference offered numerous safety-related training sessions, vendor exhibits, and an opportunity for attendees to interact with employees from other VPP sites. The employees were selected by the VPP Steering Committee for their involvement in the VPP process.

**Integrated Environmental Safety and Health Management System (ISMS):**

BHI conducted an independent assessment of the ERC Training Program of Severn Trent Laboratory-St. Louis and completed a review of 40 data validation packages for the Remedial Action Waste Disposal Project.

BHI has changed the reporting frequency to RL for the ISMS metrics from monthly to quarterly. Data was collected for May for the metrics that require monthly data. However, that data along with the data from the rest of the quarter will be reported to RL in July, after the end of the third quarter.

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**MAJOR COMMITMENTS**

**Tri-Party Agreement Milestones:** Two (2) Tri-Party Agreement milestones were planned for completion during FY03. A total of three (3) Tri-Party Agreement milestones have been completed through May.

<b>Total Tri-Party Agreement Milestones Due in FY03</b>	<b>2</b>
Total Planned through May	0
Total Completed through May	3

<b>Remaining Tri-Party Agreement Milestones to be Completed in FY03</b>	<b>0</b>
Forecast Ahead of Schedule	0
Forecast On Schedule	0

Tri-Party Agreement Milestone M-16-10A, "Initiate Remedial Action in the 100-KR-1 Operable Unit", (due August 1, 2003) was completed on December 11, more than seven months ahead of schedule.

Tri-Party Agreement Milestone M-93-16, "Complete 105-DR Reactor Interim Safe Storage" (due September 30, 2003), was completed on January 29, eight months ahead of schedule.



Tri-Party Agreement Milestone M-16-13B, "Complete Remediation and Backfill of 16 Liquid Waste Sites and Process Effluent Pipelines in the 100-FR-1 and 100-FR-2 Operable Units as Defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area" (due October 29, 2004), was completed on May 20, more than 17 months ahead of schedule. An additional 14 waste sites were also backfilled, which made a total of 30 waste sites completed.

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**


**PERFORMANCE OBJECTIVES**

BHI focus area performance incentives are noted below. Specific River Corridor performance incentives are identified in Section B.

**PIs - October through December 2002:**

PI	Fee Allocation	Task	Status
 <b>Execute Detailed Work Plan</b>	Incentive fee shall not exceed 100%; if SPI is less than 75% at end of contract period, no fee shall be awarded.	Perform to approved DWP through contract period ending 12/31/02 in accordance with the SPI provision.	Through December, the SPI was 1.10, or 10% ahead of schedule. A Notice of Completion (NOC) was submitted to RL on February 21 for the October through December time frame. RL approved the NOC on May 6.
 <b>Safety</b>	Up to 50% of fee available for this PI may be forfeited if failure to satisfactorily meet PI in accordance with applicable requirements.	Protect worker safety and health, public safety and health, and the environment.	No issues or negative findings were identified with regard to the 14 applicable performance failure criteria associated with this performance incentive through December. A NOC was submitted to RL on March 4 for the October through December time frame. RL approved the NOC on May 6.

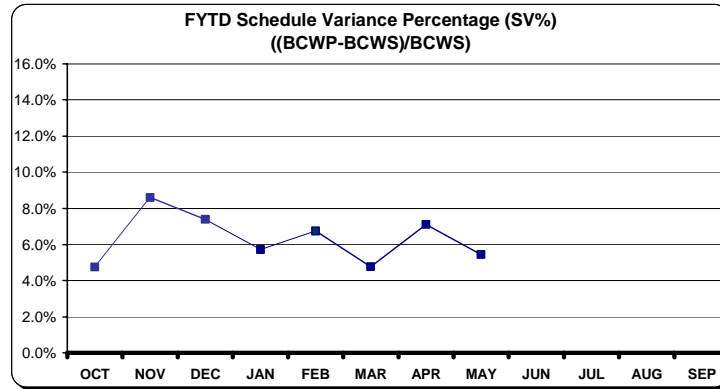
**PI - January through June 2003:**

PI	Fee Allocation	Task	Status
 <b>Safety</b>	Up to 50% of fee available for this PI may be forfeited if failure to satisfactorily meet PI.	Protect worker safety and health, public safety and health, and the environment.	No significant issues or findings were identified January 1 through May 31, 2003, with regard to the 14 applicable performance failure criteria associated with this performance incentive. During this time period, the ERC experienced 8 first aid incidents, 1 lost/restricted incident, and 1 recordable-only incident, which equates to having 93% of our workdays injury free. As of May 31, 2003, the ERC has worked approximately 879,000 hours since the last lost workday incident which occurred on June 4, 2002, and became lost time on September 4, 2002.

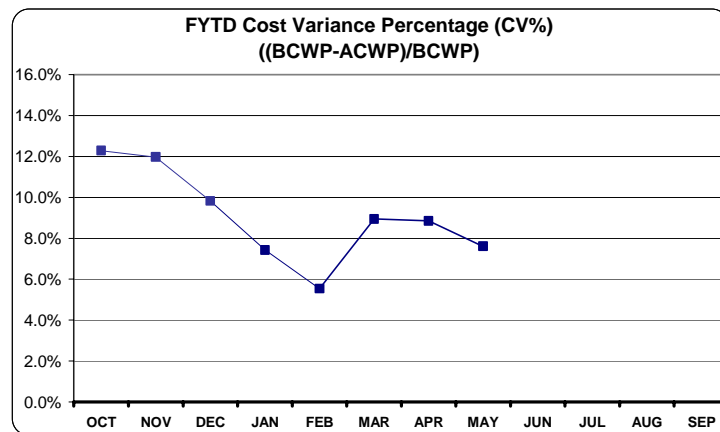
**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**TOTAL ERC COST/SCHEDULE OVERVIEW**

**FY03 ERC PERFORMANCE SUMMARY  
FYTD MAY 2003  
(\$K)**



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	8,451	8,521	9,154	8,467	8,304	10,768	8,608	8,797	10,797	8,997	10,602	9,997
DWP (Accum)	8,451	16,973	26,127	34,594	42,898	53,666	62,274	71,071	81,868	90,865	101,466	111,463
<b>CURRENT PERIOD</b>												
BCWS	8,898	8,767	10,438	8,556	8,531	10,764	9,164	10,223	12,281	9,169	11,104	9,736
BCWP	9,322	9,863	10,993	8,579	9,484	10,384	11,124	9,700				
<b>FISCAL YEAR TO DATE</b>												
BCWS	8,898	17,665	28,103	36,659	45,190	55,955	65,119	75,342	87,623	96,792	107,897	117,632
BCWP	9,322	19,185	30,178	38,757	48,241	58,625	69,749	79,449				
SV	424	1,520	2,075	2,098	3,051	2,670	4,630	4,107				
SV%	4.8%	8.6%	7.4%	5.7%	6.8%	4.8%	7.1%	5.5%				



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	EAC
<b>CURRENT PERIOD</b>													
ACWP	8,177	8,713	10,324	8,670	9,689	7,810	10,196	9,832					
BCWP	9,322	9,863	10,993	8,579	9,484	10,384	11,124	9,700					
<b>FISCAL YEAR TO DATE</b>													
ACWP	8,177	16,890	27,214	35,883	45,572	53,382	63,578	73,410					
BCWP	9,322	19,185	30,178	38,757	48,241	58,625	69,749	79,449					
CV	1,145	2,295	2,964	2,874	2,669	5,243	6,171	6,039					
CV%	12.3%	12.0%	9.8%	7.4%	5.5%	8.9%	8.8%	7.6%					
EAC (Cumulative)	8,177	16,890	27,214	35,883	45,572	53,382	63,578	73,410	85,769	93,703	102,936	110,444	110,493

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**TOTAL ERC COST/SCHEDULE OVERVIEW (continued)**

**FY03 ERC PBS PERFORMANCE SUMMARY  
FYTD MAY 2003  
(\$K)**

	FY03 DWP BCWS	CURRENT BCWS	FYTD			FYTD SCHEDULE VARIANCE			FYTD COST VARIANCE			EAC
			BCWS	BCWP	ACWP	\$	%	SPI	\$	%	CPI	
RC01	65,900	69,470	44,616	46,097	43,768	1,481	3.3%	1.03	2,329	5.1%	1.05	66,348
RC02	12,608	13,055	8,672	10,427	8,540	1,755	20.2%	1.20	1,887	18.1%	1.22	11,166
RC05	32,855	35,008	22,020	22,888	21,079	868	3.9%	1.04	1,809	7.9%	1.09	32,895
<b>RCR-Subtotal</b>	<b>111,363</b>	<b>117,533</b>	<b>75,308</b>	<b>79,412</b>	<b>73,387</b>	<b>4,104</b>	<b>5.4%</b>	<b>1.05</b>	<b>6,025</b>	<b>7.6%</b>	<b>1.08</b>	<b>110,409</b>
SC01	100	99	34	37	23	3	8.8%	1.09	14	37.8%	1.61	
<b>SS-Subtotal</b>	<b>100</b>	<b>99</b>	<b>34</b>	<b>37</b>	<b>23</b>	<b>3</b>	<b>8.8%</b>	<b>1.09</b>	<b>14</b>	<b>37.8%</b>	<b>1.61</b>	<b>84</b>
<b>ERC TOTAL</b>	<b>111,463</b>	<b>117,632</b>	<b>75,342</b>	<b>79,449</b>	<b>73,410</b>	<b>4,107</b>	<b>5.5%</b>	<b>1.05</b>	<b>6,039</b>	<b>7.6%</b>	<b>1.08</b>	<b>110,493</b>

**Schedule Variance Summary:**

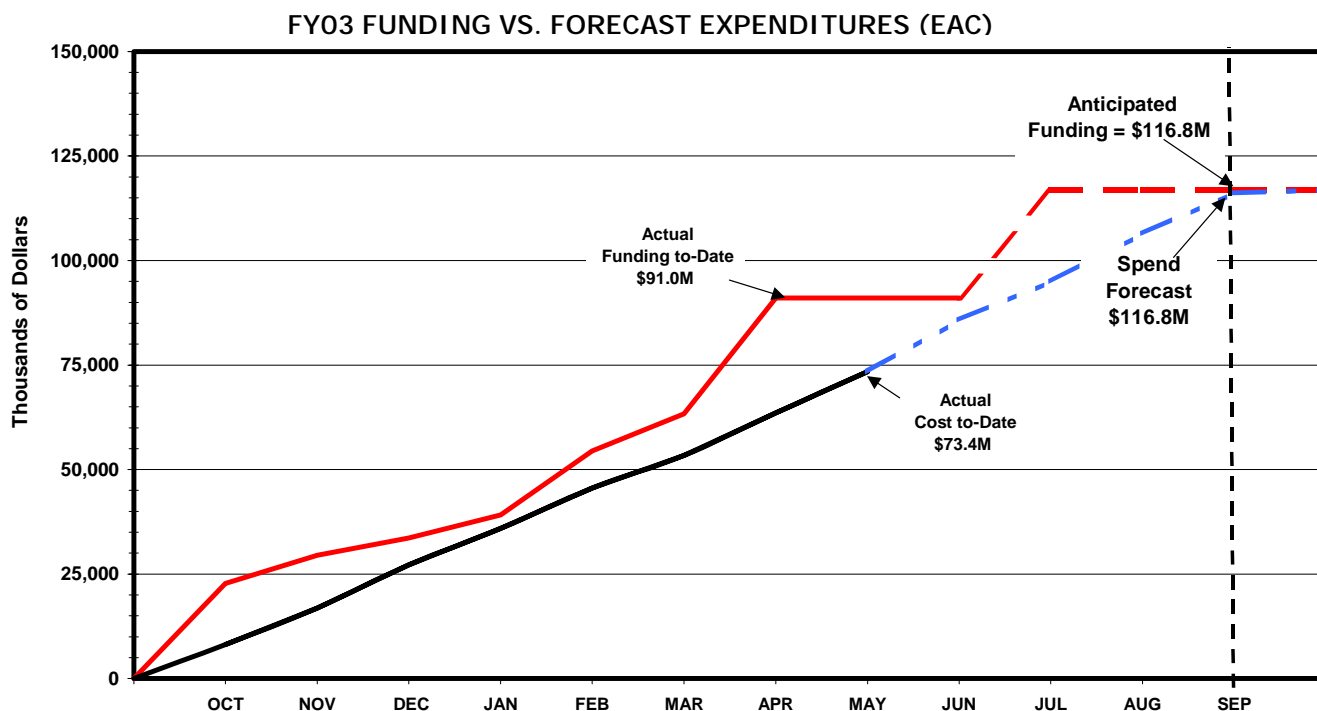
Through May, the ER Project is \$4.1M (+5.5%) ahead of schedule. The positive schedule variance is attributed to the acceleration of the 300 Area 618-5 Burial Ground remediation operations, 100 N Area plume excavation and 100 F Area cleanup verification/backfill proceeding ahead of schedule, and related ERDF operations ahead of schedule.

**Cost Variance Summary:**

At the end of May, the ER Project had performed \$79.4M worth of work, at a cost of \$73.4M. This results in a favorable cost variance of \$6.0M (+7.6%). The positive cost variance is attributed to consolidating common 618-4 and 618-5 Burial Ground remediation activities, lower project support costs due to resource sharing for 100 Areas remediation, and prior-year rebill accounting adjustments that were realized in March. Underruns are partially offset by additional cost to resolve ISS higher than anticipated radioactive contamination findings.

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**TOTAL ERC COST/SCHEDULE OVERVIEW (continued)**



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Est. Outlay ETC	TOTAL
1	<b>FY03 ERC FUNDING</b>	22,717	29,506	33,639	39,169	54,469	63,380	91,038	91,038	91,038	116,809	116,809	116,809		
<b>ACTUAL/EAC ON APPROVED SCOPE</b>															
2	Actual Cost Cumulative Through May	8,176	16,889	27,213	35,883	45,572	53,382	63,578	73,410						
3	Current Monthly Actuals/EACs	8,176	8,713	10,324	8,670	9,689	7,810	10,196	9,832	12,360	7,934	9,233	7,507		
4	Cumulative Actuals/EACs on Approved Scope	8,176	16,889	27,213	35,883	45,572	53,382	63,578	73,410	85,770	93,704	102,937	110,444	49	110,493
<b>JUNE FY2003 APPROVED BCPs</b>															
5															0
6	Subtotal Approved Scope Changes									0	0	0	0		0
<b>JUNE FY2003 PENDING/SCOPE CHANGES</b>															
7	RC01 BCP-23049 115-KW Gas Recirculation Bldg Roof Repairs									3	59				62
8	RC01 BCP-23062 B Reactor Ventilation Upgrade									(120)	115	16			11
9	RC01 BCP-23064 Accelerate Subcontractor Demobilization at 100 F										80				80
10	RC01 BCP-23065 B Reactor Mitigation Accelerated Work Scope										15	20	35		70
11	RC01 BCP-23066 Accelerate Excavation of Waste Sites 100-B-1 and 126-B-3										150	150	150		450
12	RC01 BCP-23X01 KW Reactor Bunker Oil Tank										50	30			80
13	RC01 BCP-23X02 B Reactor Hazards Mitigation - Concrete Block Repair											40	40		80
14	RC01 BCP-23X03 F Reactor CVP's										25	75	100		200
15	RC01 BCP-23X04 107-N DQO/SAP										25	30	50		105
16	RC01 BCP-23X05 100-B-8 Waste Site - CVP										15	19	16		50
17	RC01 BCP-23X06 Closeout 16 Additional Waste Sites in 100 B/C Area										89	170	339		598
18	RC01 BCP-23X07 100 B/C Pipelines SP Sampling Campaign III & CVP's										34	46	38		118
19	RC01 BCP-23X08 Additional Containers in 100 B/C and 100 K Areas										543	731	600		1,874
20	RC01 BCP-23X09 Additional Containers in 100 K Area										124	167	137		428
21	RC01 BCP-23X10 100 B/C Burial Ground Remaining Sites Final Design/Prepare RFP's										61	82	68		211
22	RC02 BCP-23X11 618-5 Burial Ground Quantity Reduction - Waste Minimization										(197)	(199)	(188)		(584)
23	RC02 BCP-23X12 Reduced Tonnage for LDR Lead Soil from 300-FF-2										(120)				(120)
24	RC02 BCP-23X13 300 Area Regrade Alternatives										6				6
25	RC02 BCP-23X14 300-FF-2 Remaining Sites (Partial) Final Design/Prepare RFP's										38	51	41		130
26	RC05 BCP-23061 Increased Volumes Requiring Special Treatment at ERDF									213					213
27	RC05 BCP-23X15 ERDF Cells 5 & 6 Construction - Accelerate Mobilization										76	379	319		774
28	ALL BCP-23X16 Implementation of the River Corridor Contract Transition											454	454	567	1,475
29	ALL BCP-23X17 Additional Retiree Medical Costs									51	6	6	6		69
30	ALL Pending Scope Additions, Deletions, etc. (Includes Central Plateau Accounting Adjusted Funding Allowance)									(16)	(16)	(16)	(16)		(64)
31	Subtotal Approved BCPs + Pending BCPs									11	1,298	2,251	2,189	567	6,316
32	Current Monthly Actuals/EACs + June FY03 Approved/Pending BCPs	8,176	8,713	10,324	8,670	9,689	7,810	10,196	9,832	12,371	9,232	11,484	9,695	567	
33	Cumulative Actuals/EACs + June FY03 Approved/Pending BCPs	8,176	16,889	27,213	35,883	45,572	53,382	63,578	73,410	85,781	95,013	106,497	116,192	616	116,809

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**ISSUES (REGULATORY/EXTERNAL/DOE)**

See Section B issues.

**KEY INTEGRATION ACTIVITIES**

See Section B key integration activities.

**UPCOMING PLANNED KEY EVENTS**

Transition ER River Corridor workscope.



**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

## **SECTION B – RIVER CORRIDOR RESTORATION**

**Data as of month-end May**

### **ACCOMPLISHMENTS**

#### **100 Area River Corridor Cleanup (RC01):**

Only minimal contaminated material has been found surrounding the 1.7-meter (66-inch) pipelines being excavated at C Reactor. This has allowed additional clean overburden soil to be stockpiled on the site.

The 100 B/C Area Pilot Study Sampling and Analysis Plan (SAP) was revised to incorporate comments and recommendations from the RL independent peer review panel. The review panel consisted of experts from the Institute of Regulatory Science in the fields of geohydrology, ecological risk assessment, CERCLA site closures, and statistics. The revised SAP was submitted to RL on May 30.

On May 1, the Remedial Action and Waste Disposal (RAW) Project and Interim Safe Storage (ISS) Project jointly commenced removal of contaminated soil at the F Reactor site that had been excavated earlier this fiscal year during fuel storage basin (FSB) demolition activities. A total of 11,434 metric tons (12,604 tons) of contaminated soil was removed and disposed in ERDF. This joint effort will continue through June disposing of stockpiled material previously removed from the D Reactor FSB and 117-DR Filter Building waste sites.

Backfill of 30 liquid waste sites was completed in the 100 F Area on May 20. This marks the completion of Tri-Party Agreement Milestone M-16-13B, "Complete Remediation and Backfill of 16 Liquid Waste Sites and Process Effluent Pipelines in the 100-FR-1 and 100-FR-2 Operable Units as Defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area" (due October 29, 2004). The remediation activities were completed more than 17 months ahead of the milestone schedule and included 14 additional waste sites.

Sampling was completed for the 600-107 Gable Mountain Drain waste site and six 600 Area waste sites.

The project also completed digging ten potholes to support the development of the final section of the 100 K Area Mitigation Action Plan. Representatives of the Nez Perce and Wanapum tribes participated in the activity. No cultural resources were observed in the excavations.

The Final Hazard Categorization and Auditable Safety Analysis for the Remediation of 118-K-1 Solid Waste Burial Ground, Decisional Draft, was submitted to RL for review.

Significant effort continues toward achieving the goal to complete 32 waste sites by June 30. As of the end of May, closure documentation has been submitted for 28 waste sites. A total of 18 waste sites have been excavated through May.

In the 100 N Area, excavation of plume 10 adjacent to the 116-N-1 Trench was completed. Excavation was initiated on plumes 12 and 14.

RL, EPA, and Ecology approved the 116-N-1 Explanation of Significant Difference (ESD) on May 27. This is the first ESD to invoke the "balancing factors" to determine the extent of excavation below 4.5 meters (15 feet). The institutional controls (ICs) were expanded to prohibit irrigation at the 116-N-1 waste site based on these balancing factors. The result of prohibiting irrigation and maintaining ICs prevented further excavation in the deep zone for a cost avoidance of \$54 million.

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

<b>ACCOMPLISHMENTS (continued)</b>
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A small-business design subcontract was awarded in May to address the elevated radiological dose and airborne levels in the 116-N-1 Crib.

Through May, ISS activities for F Reactor are 95% complete; H Reactor is 49% complete.

The subcontract for the D Reactor safe storage enclosure (SSE) design and installation was awarded on May 22. Characterization sampling of the D Reactor FSB side slope soils was also completed on May 16. Through May, ISS activities for D Reactor are 85% complete.

The subcontract for the DR Reactor cleanup verification package (CVP) was awarded on May 6. 117-DR Filter Building demolition and material loadout are expected to be completed in June.

Loadout of the 118-C-4 Horizontal Rod Storage Cave debris was completed on May 15. Rod disposal is expected to be completed in early June. Variance and verification soil samples were completed and sent to offsite laboratories for analysis.

100 Area surveillance and maintenance (S&M) tasks completed during May included:

- Established a subcontract for additional field work on the 109-N asbestos removal (pipe elbows) and 1112-N reroofing projects.
- Completed bare ground pre-emergent herbicide application on May 11.
- Completed spring vegetated post-emergent herbicide on May 13.
- Troubleshoot and repaired the B Reactor main breaker on May 14.
- Conducted annual inspection tours of B, C, KE, KW, and N Reactors for the Russian delegation in support of the U.S.-Russian Plutonium Production Reactor Agreement Treaty.
- Completed the annual review of the Emergency Procedures Hazards Assessment for the 308 Building.

ERC cumulative socioeconomic contractual goals for small business, disadvantaged, and woman-owned small business have all been succeeded through May.

**300 Area Cleanup (RC02):**

CVPs, Rev. 0, were approved in May for Landfills 1A and 1B located in the 300 Area.

Excavation and stockpiling of the oil-contaminated soil from the 618-4 Burial Ground was completed.

**River Corridor Waste Management (RC05):**

The ERDF Disposal team has worked 85 months (since project inception) without a lost time accident.

During May, 65,061 metric tons (71,718 tons) of contaminated waste were disposed in ERDF, for a total of 425,031 metric tons (468,519 tons) disposed to date in FY03. A total of 3,888,674 metric tons (4,286,552 tons) of waste have been disposed in ERDF since operations began in July 1996.



**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS)**

TPA Milestone	Description	Due Date	(F)/(A) Date
M-16-10A	Initiate Remedial Action in the 100-KR-1 Operable Unit	08/01/03	12/11/02 (A)
M-93-16	Complete 105-DR Reactor Interim Safe Storage	09/30/03	01/29/03 (A)
M-16-63*	Submit a Schedule and TPA Milestones to Complete Interim Remedial Actions for the Following 300-FF-2 Waste Sites (300-259, 303-M SA, 303-M UOF, UPR-300-46, URP-300-17, and 618-1) and Confirmatory Sampling of the Following 300-FF-2 Candidate Sites (300-109, 300-110, and 333 ESHWSA)	11/30/03	At Risk*
M-94-01*	Submit a Schedule and TPA Milestones to Complete Disposition of the Following Surplus Facilities: 303M, 332, 333, 334, 334A, 3221, 3222, 3223, 324, 3225, 324, 324B, 327 (River Corridor scope currently maintained by FH)	11/30/03	At Risk*
M-16-13B	Complete Remediation and Backfill of 16 Liquid Waste Sites and Process Effluent Pipelines in the 100-FR-1 and 100-FR-2 Operable Units as Defined in the Remedial Design Report/ Remedial Action Work Plan for the 100 Area	10/29/04	05/20/03 (A)

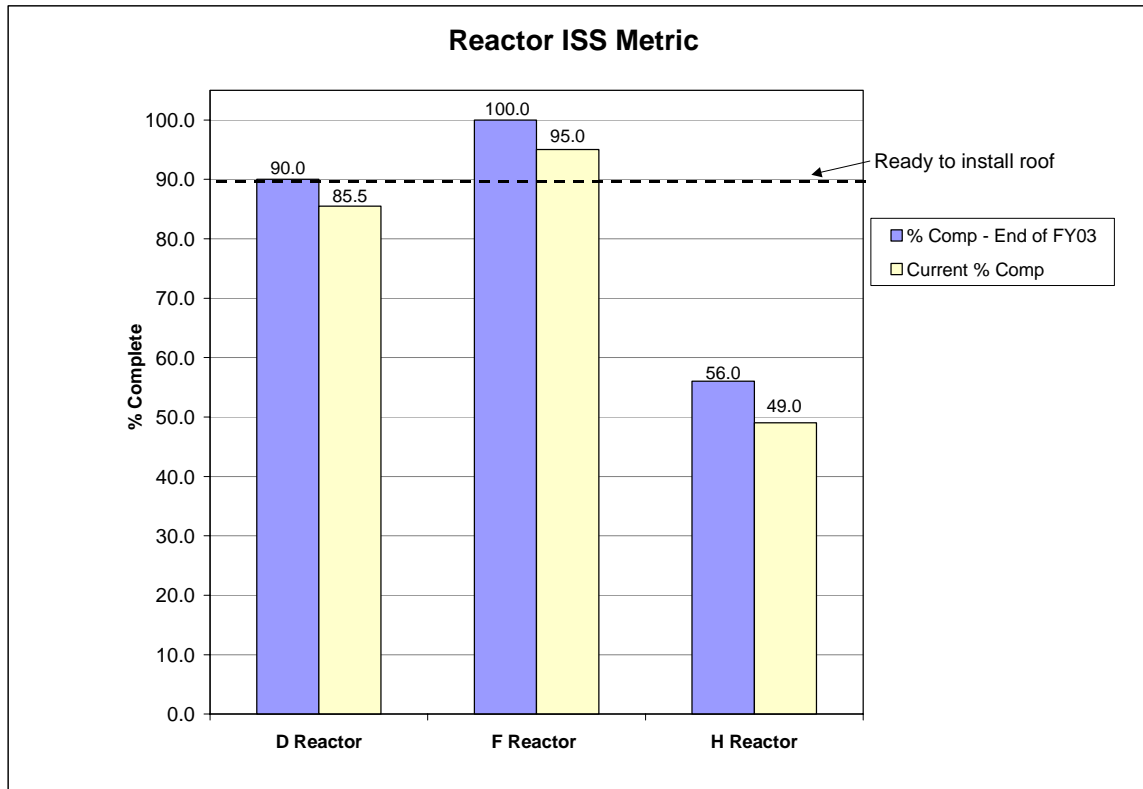
\*RL is working with regulators to discuss potential impacts/options.

**PERFORMANCE OBJECTIVES**

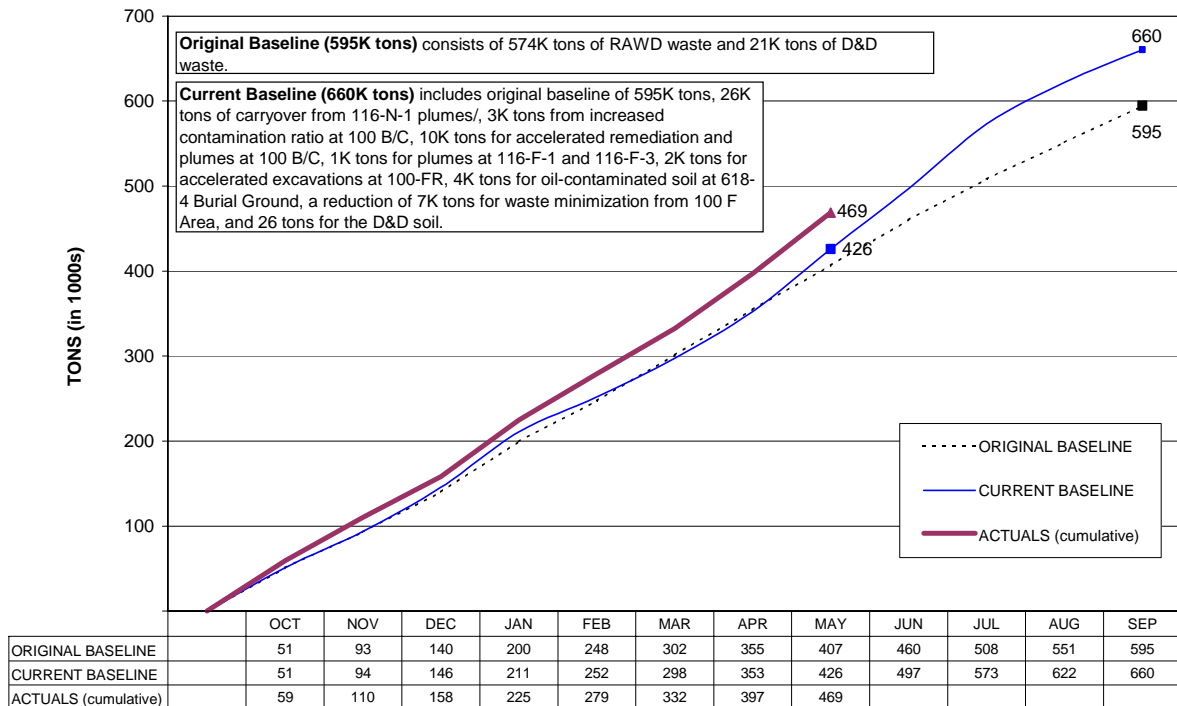
PI	Task
 <b>F Reactor Interim Safe Storage</b>	<p>Complete FY02 carryover ISS activities at F Reactor by November 20, 2002.</p> <p><b>Status:</b> Completed on November 13, 2002. Notice of Completion package transmitted to RL on January 8, 2003. RL completed review and approved payment of full fee on January 30, 2003.</p>
 <b>Accelerate River Corridor D&amp;D and Remediation of Release Sites</b>	<p>Complete 32 release sites (cleanup verification package [CVP] or waste site reclassification sheet [WRS]) and demolition of 2 facilities.</p> <p><b>Status:</b> As of month-end May, 28 waste sites have been completed. Demolition and loadout have been completed for 2 facilities (1720-HA Arsenal Building and 118-C-4 Horizontal Rod Storage Cave); rod disposal is in progress.</p> <p>Exceed baseline disposal total (457K tons) up to a total of 65.5K additional tons. Complete 15 additional release sites (CVP or WRS). Complete demolition of a third facility.</p> <p><b>Status:</b> On schedule for completion by June 30, 2003. Through May, 457K tons have been disposed. Demolition and loadout of the 117-DR Filter Building are expected to be completed in June.</p> <p>Achieve ISS progress in accordance with DWP.</p> <p><b>Status:</b> Activities are on schedule.</p>

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**PERFORMANCE MEASURES/METRICS**



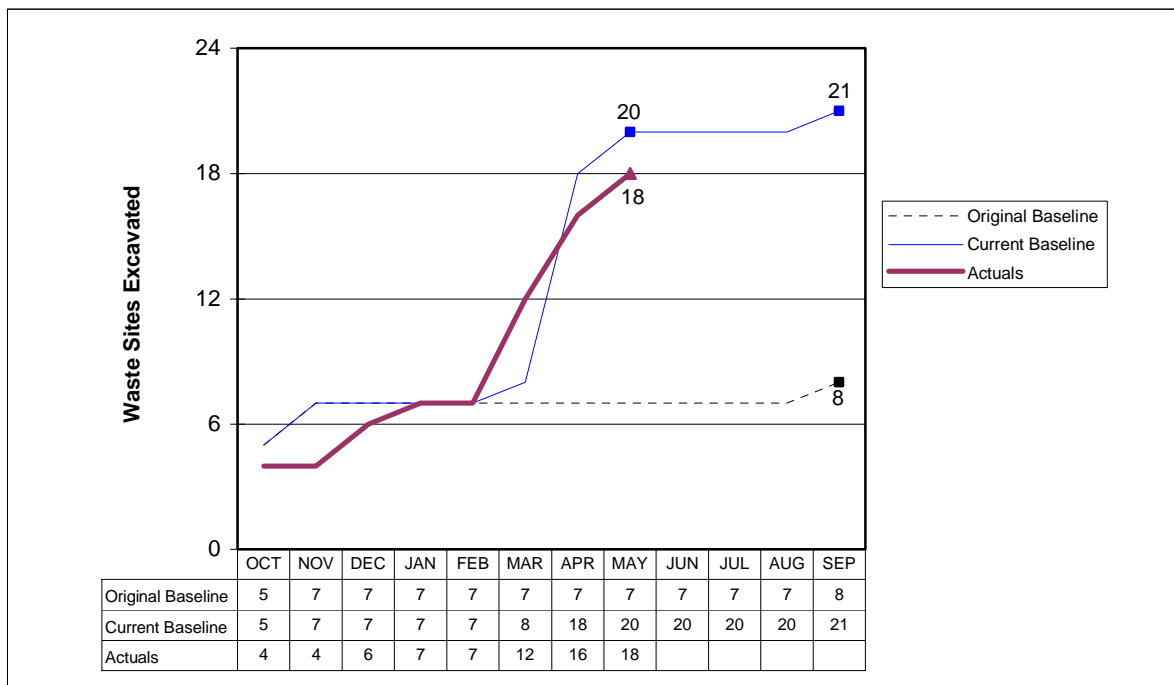
**Remedial Action Metric  
Cumulative Tons to ERDF**



**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**PERFORMANCE MEASURES/METRICS (continued)**

**Waste Site Metric**  
Excavations Completed (cumulative)



**Technology Deployments**

Technology Deployment	PBS	Date Deployed	First-Time Deployment
Enhanced Site Characterization System (deployed at 618-5 Burial Ground)	RC02	10/02	No
RF Camera System for Brokk™ (deployed at H Reactor FSB)	RC01	10/02	Yes
IPIX 360-Degree Photography (deployed at C Reactor)	RC01	11/02	Yes
Mobile Access Control (Dolphin platform) (deployed at 100 K Area)	RC01	12/02	Yes
Ultra Lift (deployed at 100 N Area)	RC01	01/03	Yes
ISO-CART (deployed at 190-DR Facility)	RC01	02/03	Yes
ERDF Truck Survey Tool (Dolphin platform) (deployed at 100 B/C remedial action sites)	RC01	02/03	Yes

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**COST/SCHEDULE STATUS**

ERC - SCHEDULE VARIANCE	BCWS	BCWP	Variance
	\$K	\$K	\$K
RC01 - 100 Area River Corridor Cleanup	44,616	46,097	1,481
RC02 - 300 Area Cleanup	8,672	10,427	1,755
RC05 - River Corridor Waste Management	22,020	22,888	868
SC01 - Near-Term Stewardship	34	37	3
<b>TOTAL ERC</b>	<b>75,342</b>	<b>79,449</b>	<b>4,107</b>

**PBS-RC01 – 100 Area River Corridor Cleanup**

Schedule Variance = **\$1,481K; 3.3%**

**Cause:** 100 N Area plume excavation and 100 F Area cleanup verification package preparation/backfill are ahead of schedule.

**Resolution:** N/A

**Cause:** F Reactor SSE roof enclosure installation is approximately one month ahead of schedule.

**Resolution:** N/A

**PBS-RC02 – 300 Area Cleanup**

Schedule Variance = **\$1,755K; 20.2%**

**Cause:** 618-5 Burial Ground soil excavation and sampling activities were finished ahead of schedule. Remaining loadout activities are scheduled for completion in June.

**Resolution:** N/A

**PBS-RC05 – River Corridor Waste Management**

Schedule Variance = **\$868K; 3.9%**

**Cause:** LDR lead soil treatment ahead of schedule; waste disposal also ahead of plan.

**Resolution:** N/A

**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**COST/SCHEDULE STATUS (continued)**

ERC - COST VARIANCE	FY03 EAC	BCWP	ACWP	Variance
	\$K	\$K	\$K	\$K
RC01 - 100 Area River Corridor Cleanup	66,348	46,097	43,768	2,329
RC02 - 300 Area Cleanup	11,166	10,427	8,540	1,887
RC05 - River Corridor Waste Management	32,895	22,888	21,079	1,809
SC01 - Near-Term Stewardship	84	37	23	14
<b>TOTAL ERC</b>	<b>110,493</b>	<b>79,449</b>	<b>73,410</b>	<b>6,039</b>

**PBS-RC01 – 100 Area River Corridor Cleanup**

Cost Variance = **\$2,329K; 5.1%**

**Cause:** Lower project support costs due to resource sharing between 100 K and 100 F Area; 100 F Area remediation labor costs less than planned due to efficiencies gained from early backfill completion.

**Resolution:** Underrun reflected in EAC.

**Cause:** More effort than planned to engineer and prepare the D Reactor fuel storage basin for backfill due to side slope contamination; water in H Reactor FSB slowed hot-spot removal; and additional equipment moves for 117-DR Filter Building demolition and loadout.

**Resolution:** Overrun reflected in EAC.

**Cause:** Prior-year provisional rate rebill accounting adjustments were realized in March.

**Resolution:** Underrun reflected in EAC.

**PBS-RC02 – 300 Area Cleanup**

Cost Variance = **\$1,887K; 18.1%**

**Cause:** Efficiencies realized in 618-4 Burial Ground sorting, sampling, and loadout of contaminated soils; consolidation of common 618-4 and 618-5 Burial Ground remediation activities.

**Resolution:** Underrun reflected in EAC.

**PBS-RC05 – River Corridor Waste Management**

Cost Variance = **\$1,809K; 7.9%**

**Cause:** Subcontract negotiations yielded reduced LDR lead soil treatment costs; uranium oxide preliminary treatment plan was simplified; streamlined design approach for ERDF Cells 5 and 6 construction resulted in lower costs than planned; offset by increased transportation requirements.

**Resolution:** Underrun reflected in EAC.

**Cause:** Prior-year provisional rate rebill accounting adjustments were realized in March.

**Resolution:** Underrun reflected in EAC.



**ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT  
ENVIRONMENTAL RESTORATION  
MAY 2003**

**ISSUES (REGULATORY/EXTERNAL/DOE)**

- **100 N Area Remediation:** Results of residual radioactivity (RESRAD) modeling performed for the 116-N-1 crib and trench indicate that the site will not attain groundwater remedial action objectives (RAOs) following excavation. The results indicate that the lowest vadose zone layer contributes contaminants at levels above the RAOs.

**Strategy/Status:** Regulators and stakeholders provided input on the proposed Explanation of Significant Difference (ESD) for 116-N-1 site closeout during the Hanford Advisory Board (HAB) River and Plateau Committee meetings held from November 2002 through March 2003. The ESD public comment period started on February 3 and ended on March 31. ESD comments were addressed, and the ESD was approved on May 27 by RL and the regulators. Issue closed.

- **M-16-63 and M-94-01:** Tri-Party Agreement Milestone M-16-63, "Submit a Schedule and TPA Milestones to Complete Interim Remedial Actions for the Following 300-FF-2 Waste Sites (300-259, 303-M SA, 303-M UOF, UPR-300-46, UPR-300-17, and 618-1) and Confirmatory Sampling of the Following 300-FF-2 Candidate Sites (300-109, 300-110, and 333 ESHWSA)"; and Milestone M-94-01, "Submit a Schedule and TPA Milestones to Complete Disposition of the Following Surplus Facilities: 303M, 332, 333, 334, 334A, 3221, 3222, 3223, 3224, 3225, 324, 324B, 327" (both due November 30, 2003), are at risk due to the delay in awarding the River Corridor contract.

**Strategy/Status:** RL is working with EPA and Ecology to discuss potential impacts and options for resolution of these milestones.

- **Occurrence Reporting DOE Order:** Hanford Site implementation by RL and other Site contractors is proceeding toward a June 30 implementation date of the new occurrence reporting system. ERC has not received direction for implementation. After June 30, the ERC Occurrence Reporting and Processing System will not match the rest of the DOE complex.

**Strategy/Status:** The ERC developed a short-term implementation strategy which will ensure the mechanisms for continued reporting of environmental, safety, and health incidents are in place. Issue closed.

**INTEGRATION ACTIVITIES**

ERC issued a work order to Fluor Hanford (FH) to decommission nine wells in the 100 N Area. This work is in support of decontamination and decommissioning activities at the emergency dump tank/basin.

ERC transferred lead blankets and a contamination tent to the FH 222-S laboratory in support of the Hanford Site pollution prevention/waste minimization activities. This represents a cost savings of reuse rather than purchasing new equipment and materials.